Nuclear Division News

A Newspaper for Employees of the Nuclear Division, Union Carbide Corporation

Vol. 7, No. 7/April 1, 1976

Dean named superintendent of fabrication, maintenance

4796-1

The appointment of L. A. (Tony) Dean as Fabrication and Maintenance Division Superintendent at the Oak Ridge Gaseous Diffusion Plant has been announced by Robert A. Winkel, Plant Manager.

Dean, who has been Assistant Division Superintendent in charge of the fabrication shops and process maintenance at the Paducah Gaseous Diffusion Plant, succeeds Lawrence A. Studinger, who is assuming another assignment reporting to the ORGDP Plant Manager.

A native of Harrodsburg, Ky., Dean received his bachelor's degree in mechanical engineering from the University of Kentucky. He has also taken advanced course work toward a master's degree in business administration at Murray (Ky.) State University.

He joined Union Carbide's Nuclear Division in 1951 as a shift foreman at the Oak Ridge Gaseous Diffusion Plant and was appointed a shift foreman at the Paducah plant in 1952. Since then he has served in increasingly responsible positions at the Plant, including assistant area supervisor, area supervisor, and chemical operations department head. He was named an assistant division superintendent in 1967.

L. A. "Tony" Dean

Dean is married to the former Eleanor McFatridge, also of Harrodsburg, Ky. They have three daughters, Ann Bradley, Ellen and Nancy.

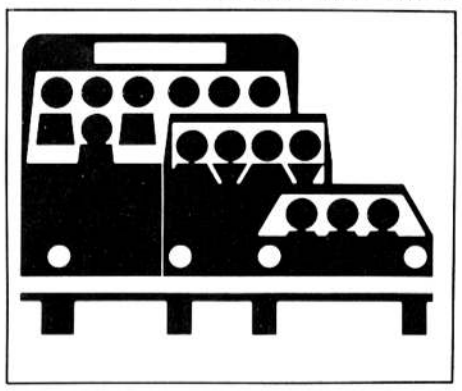
Nuclear Division joins UT efforts to aid carpooling

Tired of paying the high price of commuting to work? The Nuclear Division, in cooperation with The University of Tennessee and other firms in the East Tennessee area, is participating in a computerized ride-sharing program.

The Oak Ridge Gaseous Diffusion Plant has launched the service, with the Y-12 Plant to follow, and the Oak Ridge National Laboratory to survey its employees for ride needs later this month.

Coordinators for the three-plant venture are Esther Wright, ORGDP; James M. Seivers Jr., Y-12; and Gerald F. R. Johnson, ORNL.

The computerized system was developed by the UT Transportation Department, and will identify employees' addresses and telephone numbers, and correlate those who live in the same vicinity who could possibly participate in a carpool to work. (A similar one-time survey was made in the Nuclear Division about three years ago.) This new system will be kept up to date, as transfers and changes of address occur.



Only those who wish to participate in a carpool need return the applications. If, at some future date, others wish to participate, they may contact the office of their plant coordinator.

There is no cost or obligation to join a carpool when an application is submitted. The questionnaire requires only minutes to fill out, and after it has been submitted, those interested will be supplied with a list of other commuters living in the same area, where a possible carpool may be affected.

Coordinator Wright has already distributed the questionnaires to all divisions at ORGDP, and it was expected that all employees there would be contacted by this week. Division by division, coordinators include: John Million, Laboratory; H. C. Wright, Purchasing; N. C. Williard, Barrier; Harry M. Sartell, Security and Plant Protection; R. R. Abbott, Auditing; R. B. Bible, Accounting; Faye Duncan, Operations Analysis; Virginia Donahue, Operations; J. C. Jennings, Computer Sciences; Dave Passons, Plant Methods; Clea Need, Engineering; W. D. Holmes, Separation Systems; Edwena Dunbar, Fabrication and Maintenance; and A. E.

(please turn to page 8)

Air raid test set April 1

The Y-12 Plant air raid sirens will be tested Friday, April 1, at 11:30 a.m. The test will be preceded by a plant public address announcement emphasizing that it is a test only and that no evacuation or other action is required by employees.

Sirens of this system are located on the tops of Buildings 9201-3, 9996, 9204-4 and 9213. The system is designed to be heard outside the buildings only.

This is the first test of the system to be made on day shift on a regular working day, and is being made to acquaint the majority of the plant population with the sound of this alarm. Previously, test have been made at three-month intervals on Sunday mornings.

The undulating siren sound is similar to air raid warning sirens used by the City of Oak Ridge and other municipalities in the surrounding area.

As has been the practice with the three-month tests in the past, radio stations in Oak Ridge and the *Oak Ridger* are also being informed of this test.

0522-76

inside ...

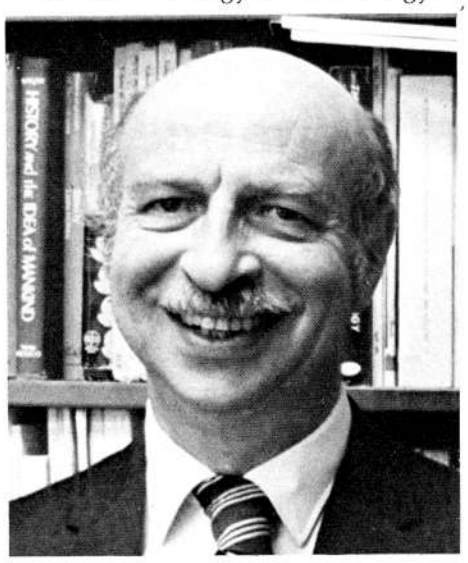
Continuing our look at service groups in the Nuclear Division, we focus in this issue on the libraries — specifically ORNL's Research Library System. At left Kathleen Webster, ORNL Health Physics Division, surveys the stacks in a search for information. To gain some new information for yourself, read about the libraries ... beginning on page 4.

Other features in this issue:

First in series

Bicentennial Lecture Tuesday

The first of six in a series of bicentennial Lectures on Technology and Society will be presented at 8 p.m. Tuesday, April 6, at the American Museum of Atomic Energy. Melvin Kranzberg, Callaway professor of the history of technology at the Georgia Institute of Technology, will speak on "The Social Ecology of Technology."



Kranzberg: "The Social Ecology of Technology"

Sponsored by the Oak Ridge National Laboratory, the lecture series will stress the history of technology in the United States and its present and probable future impacts on society. Four lectures will be held this spring, to be followed by two more in the fall.

All six lectures will open to the public, free of charge.

Professor Kranzberg came to Georgia Tech in 1972 from Case Western Reserve University, where he established the first graduate-level program in the history of technology at an American university. He is the founder of the Society for the History of Technology and editor of the society's journal, *Technology and Culture*.

He is a past member of the Technology Assessment Panel of the National Academy of Sciences, a member of the National Board of Directors of Sigma Xi, and former vice president of the American Association for the Advancement of Science. In 1967 he was awarded the Leonardo da Vinci Medal of the Society for the History of Technology.

ENERGY CONSERVATION REPORTS — Mrs. Patricia Postell of the Oak Ridge Public Library accepts a set of home energy conservation reports originally authored by ORNL personnel. Awarding the reports were Roger S. Carlsmith, right, Energy Division, and Eugene C. Hise, Reactor Division. The documents will be available for reference.

Oak Ridge Library presented documents

A number of reports prepared by Oak Ridge National Laboratory personnel on the subject of residential energy conservation have been presented to the Oak Ridge Pulbic Library for use as reference documents.

The reports, prepared originally for sponsoring agencies such as the Energy Research and Development Administration, the National Science Foundation, the Federal Energy Administration and the Department of Housing and Urban Development, contain information which should be useful to homeowners seeking ways to trim their electrical power or gas consumption.

Titles and authors of the documents are: "The Value of Thermal Insulation in Residential Construction: Economics and the Conservation of Energy," by John C. Moyers; "Residential Consumption of Electricity, 1950-1970," by John Tansil; "The Aroom Air Conditioner as an Energy Consumer," by Moyers; "The Energy Conservation Potential of Winter Thermostat Reductions and Night Setback," by David A. Pilati; "Seasonal Fuel Utilization Efficiency of Residential Heating Systems," by Eugene C. Hise; "Room Air-Conditioner Lifetime Cost Considerations: Annual Operating Hours and Efficiencies," by Pilati; "Heat Balance and Efficiency Measurements of Central, Forced-Air, Residential Gas Furnaces," by Hise and Allen S. Holman; "A Regional Comparison of Savings from Various Residential Energy Conservation Strategies," by J. G. Delene and J. B. Gaston. Also included is a booklet entitled "In the Bank or up the Chimney?" prepared by a Cambridge, Mass. firm for the Department of Housing and Urban Development.

anniversaries

GENERAL STAFF

35 YEARS

Williams

William E. Williams, benefit plans administrator in General Employee Relations, joined Union Carbide in April, 1941, in the Vinylite development program of the National Carbon Division at Cleveland, Ohio. He later transferred to the Bakelite Division at Bound Brook, N. J., and for five years was personnel manager of UCC General Office in New York.

Williams came to Oak Ridge in 1951. A native of New Willard, Tex., he and his wife, Donna, live at 451 East Drive, Oak Ridge. They have two sons and a daughter.

Williams holds a BS degree in chemical engineering from the University of Colorado, and an MS in industrial management from The University of Tennessee. He also attended Rice University.

Y-12 PLANT

30 YEARS

Robert W. Schede, Development Operations; Robert A. Riordan, Mechanical Inspection Department; Robert K. Bennett Jr., Development Operations; and John W. Shipley Jr., Materials Specimen Shop.

25 YEARS

Joseph E. Morgan, William F. Smith, John G. Harber Jr., John L. Noey, Grover C. Gipson, Herbert F. Kidd Jr. and Roy C. Crawford.

20 YEARS

John W. Ellison and Bobby L. Grogan.

PADUCAH

30 YEARS

William C. Taylor, Plant Engineering.

25 YEARS

Harry P. Colbert, Lisle S. Lough, Robert E. Perry, Elizabeth F. Grief, Edward W. Kincer, Helen E. Housman, Edward N. Krinard, J. W. "Bill" Hiett, Shelby D. Isbell and Carl F. Fuller.

Kenneth Shank receives Purdue research award

Kenneth E. Shank, Health Physics Division at Oak Ridge National Laboratory, has been named the 1976 recipient of the Glenn L. Jenkins Recognition Award for Excellence in Research, made by Purdue University's School of Pharmacy and Pharmacal Sciences.

Shank joined the Laboratory staff in August, 1975 after receiving the Ph.D. degree in bionucleonics from Purdue. He also holds an M.S. degree in health physics from Purdue and a B.S. degree, magna cum laude, from Elizabethtown College in Pennsylvania.

Shank is a member of the American Nuclear Society and the Health Physics Society, and holds membership in several honorary societies.

He and his wife, Colleen, live with their two daughters at 116 Cahill Lane, Oak Ridge.

Vondra appointed manager of LWR fuel reprocessing

The appointment of Ben L. Vondra as manager of light water reactor fuel reprocessing development at Oak Ridge National Laboratory has been announced by Donald B. Trauger, associate director for the reactor and engineering sciences.

In this post Vondra will be responsible for ORNL activities in support of a new program being established by the Energy Research and Development Administration on fuel reprocessing development for current commercial nuclear power plants.

ERDA has assigned ORNL a major role in the fuel reprocessing development program, for which the technical lead will be the responsibility of the agency's Savannah River Laboratory, Aiken, S.C.

Under the program, ORNL will concentrate on task areas closely related to the Laboratory's current development of reprocessing techniques for liquid metal fast breeder reactor fuels as well as environmental studies and preparation of environmental impact statements.

A major part of the work will be performed with irradiated fuel specimens within isolated hot cells. Goals include improving processes for removing radioactive gases during fuel reprocessing procedures.

Ben L. Vondra

In addition to overall direction of the light water reactor fuel reprocessing program, Vondra also will manage the laboratory and hot-cell activities for both the light water reactor and liquid metal fast breeder reactor fuel reprocessing programs.

Vondra came to ORNL in April, 1975 from Nuclear Materials and Equipment Corporation, a division of Babcock and Wilcox, where he was project manager on the senior staff. He has had wide experience in all areas of the nuclear fuel cycle, including fuel manufacturing processes and waste handling.

question box

If you have questions on company policy, write the Editor, Nuclear Division News *(or telephone your question in, either to the Editor, or to your plant contact). Space limitations may require some editing, but pertinent subject matter will not be omitted. Your name will not be used, and you will be given a personal answer if you so desire.*

QUESTION: More and more we hear statements telling us that "due to rising costs we are forced to increase our prices."

One thing which might benefit employees, without undue increases in cost to the Company, would be a return to the old method of Property Sales. Instead of selling in large quantities to the highest bidder (which is more beneficial to businesses than to individuals), many useful items could be offered individually at lower prices than we can find them in stores. Is this not possible?

ANSWER: When selling Government surplus items and scrap to the public, the Company is required to use methods that will give the greatest net return to the Government. Prior to 1963 the Sales Department conducted, under the old method (sometimes referred to as "retail sales") sales on a "piece" or "pound" basis. This type of sale required appropriate warehouse space and personnel to display, price, and conduct the sales operations. At that time, studies showed that the revenue from sales did not justify the added costs to the Government, and the "retail sales" were discontinued. Since that time many surplus items previously available for sale to the public are now donated to State institutions and schools through the Department of Health, Education, and Welfare.

QUESTION: My husband is employed at ORNL and we like to plan our weekend holidays. Could you publish the holidays for the remaining part of the year? Also, why did we have Thursday and Friday off last year for Christmas, and not have Friday, January 2, off also?

ANSWER: Almost all of our holidays now fall on weekends since the Federal Government adjusted Memorial Day, the Presidents' birthdays (a combination of Washington's and Lincoln's birthdays), etc. There are exceptions, however, and New Year's Day and Independence Day may not fall on a weekend. In answer to your specific question, there are two official holidays at Christmas and only one day on New Year's.

The remaining holidays for 1976 are as follows:

Good Friday	Friday, April 16, 1976
Memorial Day	Monday, May 31, 1976
Independence Day	Monday, July 5, 1976
Labor Day	Monday, September 6, 1976
Thanksgiving Day	Thursday, November 25, 1976
Day after Thanksgiving Day	Friday, November 26, 1976
Christmas Eve will be observed on	Thursday, December 23, 1976
Christmas Day will be observed on	Friday, December 24, 1976
New Year's Day (1977) will be observed on	Friday, December 31, 1976

QUESTION: Why must the Nuclear Division support the sexist policies of our parent corporation? For example, duplicate mailings of benefit brochures, *Nuclear Division News, ORNL Review,* etc. have been eliminated, but only the male members of the household were selected to receive them. This is an admirable effort to reduce unnecessary costs, but how about addressing such mailings to both members of the household.

ANSWER: Duplicate mailings to one address are eliminated whereever possible to save on postage costs. Since addressograph and computer names are by initials only, it is difficult to ascertain which addressee is male or female. Vitally needed documents (check stubs, W-2 forms, etc.) are mailed to both addressees. The elimination of one addressee is not determined by the sex of that employee. As a rule the first duplicate addressee is eliminated, and they are arranged in alphabetical order.

QUESTION: The Union Carbide accident prevention program is not followed when occupied offices and buildings are being painted, or remodeled, or both. Slippery plastic is found in hallways where it can be stepped on and cause a fall. Paint buckets and other items are stored in hallways without any warning signs or adequate illumination. I have seen up to two-thirds of a hall obstructed by filter paper over which people can fall. Could painters and remodelers have brightly colored cabinets on wheels, about chest high, to store equipment and supplies safely? Could flashing lights and signs be used to warn people that they are approaching a hazard? The safety policy should be followed all the time.

ANSWER: When conditions such as you describe are observed, they should be called to the attention of the building supervisor or the safety department in the plant in which you work. Mobile cabinets for supplies and storage of tools can be used during some repair and renovating jobs. Current plans call for more use of them and having them highly visible, as you suggest, would be desirable. Flashing lights and signs are useful to warn people that they are approaching a hazard. Maintenance safety procedures require posting, flashing lights, and/or barricading of work areas when hazardous contions exist such as overhead work, open holes, or hazardous walking surfaces. Your reporting of improperly barricaded or unidentified areas will help promote the safety program.

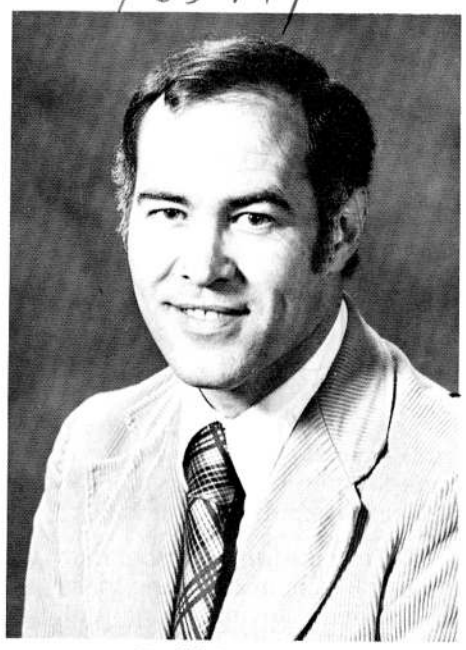
Mason superintendent in Development Division

165947

David L. Mason has been named superintendent of the Laboratory Development Department in Y-12, according to Jack Yaggi, Development Division Superintendent. He succeeds L. Elkin Burkhart who will assume special responsibilities, reporting to the division superintendent.

Mason, who was born in Nashville, grew up in Clarksville. He holds a B.A. degree from Austin Peay State University, and a Ph.D. from the University of Florida. Prior to joining Union Carbide eight years ago, he was a graduate fellow with the Oak Ridge Associated Universities, working on a dissertation at the Oak Ridge Isochronous Cyclotron at the Oak Ridge National Laboratory. Most recently, he has been section head of the Material Physics Group in Development.

Mrs. Mason is the former Judith Lantrip. They live at 139 Windham Road, Oak Ridge, with their two children, Mary and David.



David L. Mason

Mason is president-elect of the Linden Elementary School Parent-Teachers Association and is a member of the board of directors of the Oak Ridge Boys' Club.

Records seminar set April 22-23

Union Carbide Nuclear Division, Allergy Associates of Pennsylvania and the State of Tennessee are jointly sponsoring an upcoming seminar on records management.

The East Tennessee Chapter of the Association of Records Managers and Administrators has set the seminar at the Ramada Inn, Knoxville, for April 22-23. "Good Management is Records Management" has been chosen as the theme of the study.

The keynote address will be made by Jake Butcher, well-known Tennessee banker. Several UCC speakers are listed for the two-day conference. J. K. Denton, Nuclear Division Comptroller, will speak on "Management View of Records." Floyd Smith, Records Manager for UCC in New York, will talk on "Records Management as a Management Tool." John O. Purnell, Production and Maintenance Training Coordinator at ORGDP, will speak on "Management Concepts and Training."

Additional information on the seminar may be obtained from L. "Buck" Davis, president of the local chapter of ARMA, on extension 307213.

QUESTION: At a folk concert recently I heard a song about a town of "Elvaton" which was removed for the Manhattan Project plants in Oak Ridge. I don't remember reading about it in your recent series on pre-Oak Ridge communities (such as Wheat, Scarboro, etc.). Is this the area known as "Elverton" shown on TVA quadrangle maps lying north of K-25? If not, where was it, and can someone vouch for the song's authenticity? (Song words and commentary enclosed).

(Note: The folk song is included in an album called "How Can I Keep from Singing," by John M. Cutcheon, an anthology of Southern Appalachian folk songs - June Appal Records, 1973.)

ANSWER: No doubt your folk-writer was referring to the community of Elverton. While we are not in the position to question the authenticity of his history, Elverton was not a part of the Oak Ridge community. Elverton, along with Scandlyn, Blair, Orchard View, et. al., is a small community just east of Harriman. It is not "gone forever more" as the lyricist implies. Elverton Primitive Baptist Church stands near the National Guard Armory on the highway between Harriman and Oliver Springs, known as the Harvey Hannah Highway. It was once a flag station on the railroad between the two towns.

calendar

TECHNICAL
April 2

Special Seminar on Applications of Synchrotron Radiation: "X-Ray Absorption Edge Spectroscopy of Biological and Other Matter," Peter Eisenberger, Bell Telephone Laboratories, 9:30 a.m.; "Studies of Solids and Surfaces by VUV Photoelectron Emission," Dean Eastman, IBM T. J. Watson Research Center, 10:30 a.m. East Auditorium, Building 4500N.

Solid State Division Seminar: "Experiment and Theory on Substitutionally-Disordered Magnetic Systems," R. A. Cowley, Brookhaven National Laboratory. Conference Room, Building 3025, 10 a.m.

Health Physics Division Seminar: "4d Excitations in Atomic and Metallic Cs and Ba: Single Electron Behavior and Collective Effects," H. Petersen, Universitat Hamburg, Germany. Room S-126, Building 4500S, 2 p.m.

Library services:

Information at your fingertips

by Brenda Cunningham

(One in a series of articles featuring Nuclear Division service groups.)

Four or five hundred years ago scientists began sharing ideas with each other through letters. This method of exchanging ideas was a very important, but often inadequate, tool. In 1665, the first independent scientific periodical, the *Journal des Savants*, was published at Paris.

It didn't take long for other journals to appear. Communicating ideas has always been an important tool for scientists. Today, some 60,000 scientific journals are in circulation.

The need for scientists to draw on the work of each other is still as necessary as it was 400 years ago. In recognition of this need, the Oak Ridge National Laboratory Library System began to be developed in 1947 from scattered division collections, the gradual merger of branch libraries in the ORNL area, and the need for library services in the Y-12 area.

Today the ORNL Research Library System is respected throughout the world. It is one of the two largest research libraries in the South. Its primary functions are to acquire, process, and make available recorded information, and to provide retrieval services in subject fields pertinent to the technical, management and support staffs.

"Everyone on the library staff reflects an attitude of wanting to help."

The library collection consists of some 200,000 bound volumes, plus 3,500 periodical subscriptions and more than 600,000 research and development reports and allied documents.

The Central Research Library is at the X-10 site; three branches — Biology, Thermonuclear, and Y-12 Technical — are located in the Y-12 Plant area.

The ORNL Research Library is accessible to employees 24 hours a day, and is staffed between 8 a.m. and 4:45 p.m., Monday through Friday. Hours for the branch libraries are between 8 a.m. and 4:30 p.m., Monday through Friday.

Branches at Y-12

The Biology Library is located just outside the Y-12 Plant perimeter fence in Building 9207, and is available to all employees who have a need for its specialized collection.

The Y-12 Technical Library, located in Building 9711-1, services ORNL employees located in the Y-12 area, Y-12 Plant employees and the Nuclear Division General Staff. Access to the library is based on a need to know.

The Thermonuclear Library is located in Building 9201-2 in the Y-12 area. This library supports such programs as plasma physics, controlled thermonuclear research and related fusion technology. A particular focus is placed on acquiring the report literature from outstanding worldwide plasma physics laboratories.

The Biology, Y-12 Technical, and Thermonuclear Libraries contain highly specialized collections of books, journals, and research and development reports which reflect the needs generated by their users.

Separate specialized libraries, emphasizing such fields as chemistry, engineering, fluid mechanics, metallurgy and management are located at and administered by the Oak Ridge and Paducah Gaseous Diffusion Plants. These include extensive indexes which have been developed for gaseous diffusion and gas centrifuge technologies.

Reference librarian Helen Kuhns locates a research paper for a library user.

Martha Anderson, who heads the Y-12 Technical branch of ORNL's library system, confers with staff member Edward Howard over the legibility of a page to be microfiched.

The ORNL Central Research Library is expanding its program to include information from the social or "soft" sciences, such as economics, sociology, and demography.

A staff of 49 — including 19 professional librarians — performs all of the tasks involved in stocking the libraries, acquiring timely materials, finding elusive research materials, keeping all the equipment in working order, and maintaining all of the books, journals, microfilm, microfiche and reports.

Microfilm saves space

The biggest problem the library faces is one of limited space, according to Ray Dickison, ORNL library director. As a partial solution to this problem the library is converting more and more information to the microfilm and microfiche files. These can provide the same material in approximately one-twentieth the space, Dickison said. The copy machines in the library can be used to enlarge the microfilm or microfiche into standard-size hard copy.

The many services provided by the library are now more than one-third computerized. Ann Klein is in charge of the systems development group. "Systems development is a tool, a method for doing things. It is not a substitute for materials or people," she said.

Some of the services which are computerized include book catalogs, circulation of books published since 1964, journal ordering and checking-in, and other housekeeping-type operations. A computer program also generates a KWIC (Key Words In Context) Index, enabling one to quickly locate subject material.

"A major purpose for having a computerized library system is to enable the library's staff to devote their time and energy toward doing the things the computer can't do," said Miss Klein.

Another computerized service gives access to indexes and abstracts in the System Development Corporation and in the Lockheed "Dialog" System. Through these on-line retrieval services, reference to information published in journals or reports can be requested and retrieved within 24 hours.

Herbert Pomerance serves as a mediator or "interface" in translating the language of a given field or profession, such as nuclear physics or engineering, into a language understood by the computers.

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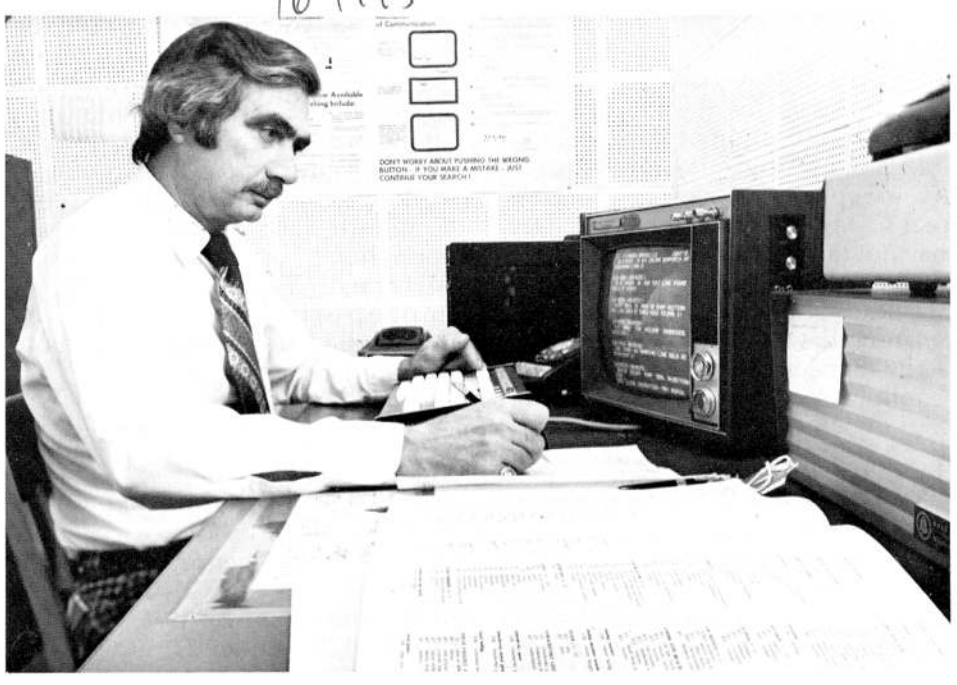


Ray Scott, working with ORNL's Reactor Division, spends an afternoon with some of Y-12 Technical's information retrieval equipment.

Library services (continued from page 4)

The library also translates foreign pieces as part of its service. Members of this group, headed by Martha Gerrard, can translate from a number of languages, including French and other romance languages, German and other germanic languages, Japanese, and the Slavic languages to English. The translation can be in the form of a rough draft, a tape recording, or a finished copy, depending on the time factor. The cost for translating is determined by the length of the piece or article.

In addition, a computer program which has the capability of translating from Russian to English is available. The program was originally designed for use by chemists, but the Russian dictionary is being enlarged to include other fields.

Elizabeth Howard was recently given a special projects function to perform special assignments requested by library management. She has completed a handbook on the library, which tells how to use its services, and a brochure of awards received by members of the ORNL staff. Both the handbook and brochure will be available soon.

The reference librarians are also a vital part of the library system. They are at the service of the library's clientele, to assist them in the use of the library. This service includes assistance with technical problems in bibliography, answering in-depth reference questions, and searching out elusive facts related to research. Lynda Lewis heads the reference section.

Dickison said he is proudest of the wide variety of services the library has to offer. Everyone on the library staff reflects an attitude of wanting to help. As Lynda Lewis put it, "we are a service organization and we are pleased to be able to make a contribution."

Savings Plan-Personal Investment Account

Recent unit values:

	Fixed Income Fund	UCC Stock	Equity Investment Fund
August 73	10.0000	34.7688	10.0000
December 73	10.2444	31.8170	9.3602
December 74	11.0438	40.3009	6.4354
November 75	11.9089	58.2039	7.9946
December 75	11.9880	58.7886	7.8231
January 76	12.0752	67.6530	8.5697
February 76	12.1619	72.8086	8.3161

Note: Fixed Income Fund unit values reflect interest additions to achieve the guaranteed effective annual interest rate of 8.55% for 1975 and 8.85% for 1976. Union Carbide stock values are the average cost of stock purchases during the month plus brokerage charges. Equity Investment Fund unit values represent the month-end market value of securities held by the Fund. Dividing the total value by the numer of units in the fund establishes the month's unit value — and the price at which new units are added that month.

anniversaries

ORGDP

30 YEARS

Lee H. Barnett, Engineering Division; Roy H. Jeffers, Fabrication Shop Department; Harrison O. Jackson, Building Maintenance Department; Robert C. Orrin, Engineering Division; Frank N. Bensey Jr., Chemical Analysis Department; Charles W. Cunningham, Engineering Division; Robert W. Lynn, Fabrication Shop Department; Lawrence E. Beyersdorf, Administrative Services; Howard E. Reynolds, U-235 Separation Department; and Stanley G. Matthews, Chemical and Technical Maintenance.

25 YEARS

William P. McEvoy, Bonner B. Martin and Josephine D. Wyatt.

20 YEARS

Robert E. Nier, Jack L. Rutherford and Thomas W. Coffey.

ORNL

30 YEARS

Ray H. Ward, Plant and Equipment Division; Richard Jernigan, Thermonuclear Division; Joseph N. Hix, Metals and Ceramics Division; William Manuel, Plant and Equipment Division; Sebra E. Foust Jr., Plant and Equipment Division; William E. Unger, Chemical Technology Division;

J. W. Weatherly, Health Division; Raycliff C. Davis, Thermonuclear Division; Julius C. Bennett, Engineering; Donald D. Walker, Instrumentation and Controls Division; Paul M. Griffin, Physics Division, and Daniel R. Carter, Finance and Materials Division.

W. Walt Goolsby, Engineering, and Daily K. Hood, Plant and Equipment Division, were accidentally omitted from the March listing. Both have completed 30 years company service.

25 YEARS

Hubert F. Gale, Roy V. McKeethan, Tennyson Mack, Donald E. Dunning, Clarence J. Cooper, John A. Masters, Ireland M. Barker and James L. Hull.

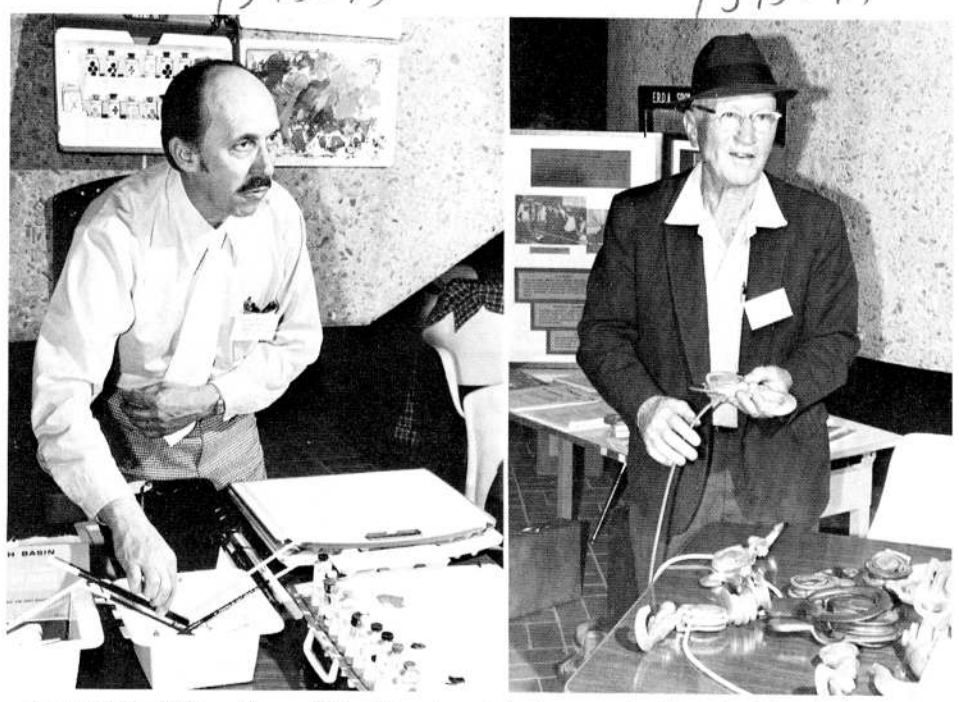
20 YEARS

John E. Van Cleve Jr., Malcolm B. Brister, Raymond D. Lawson, John J. Pinajian and Margaret R. Matthews.

GENERAL STAFF

25 YEARS

Juanita L. Elliott and Marie H. Cuthbert.



'75 ENTRANTS — Two of the 35 entrants in last year's Appalachian Inventors Fair are shown with their displays. Based on the response of the inventors who exhibited at last year's fair, the sponsors — Scientists and Engineers for Appalachia and Oak Ridge Associated Universities — have decided to make it an annual event. The Second Annual Fair has been scheduled for April 22-24 at the American Museum of Atomic Energy.

Second Annual Inventors Fair set April 22-24 at Museum

The Second Annual Appalachian Inventors Fair has been scheduled for April 22 to 24 in Oak Ridge at the American Museum of Atomic Energy.

Applications are now being accepted from inventors who wish to exhibit at the fair. To be eligible an invention should not have been licensed, assigned or otherwise put into production. By limiting the fair to as yet noncommercialized inventions, the sponsors hope to stimulate economic growth in the Appalachian region.

Invitations are being sent out this week to inventors who have received patents in the past year and who live in Tennessee, Kentucky, the western parts of North and South Carolina, Virginia and West Virginia, and the northern parts of Georgia and Alabama.

Inventors who live in other areas or have not yet secured patents but have initiated patent proceedings are also eligible to exhibit. They may obtain applications by writing the Appalachian Inventors Fair, P.O. Box 388, Oak Ridge, TN 37830.

Awards will be given again this year for inventions in ten subject categories. These are agriculture; household; industrial; toy, craft and hobby; electronics and chemistry; tools; transportation; sports and recreation; energy; and miscellaneous.

In addition, special awards will be given for Best of Show, Most Attractive Display, and Most Popular Invention. This last award will be selected by the public attending the fair.

The fair will also feature special workshops for the inventors, public exhibition of the entries, and a featured evening talk on "Olde Time Science, the Root of Inventions," by Rudolph Schrils of the University of Kentucky at Lexington.

In the workshops, inventors will be given information about evaluating market potential for their creations, securing patents, approaching manufacturers, setting up businesses, keeping records, and other aspects of marketing inventions.

Panelists, many of whom will be entrepreneurs or industrialists, will be available for discussion of individual problems after each workshop. Area manufacturers will also be active in the judging for awards. A major purpose of the fair is to give inventors an opportunity to meet these potential manufacturers.

Inventors have until April 9 to submit their entries to the fair.

Scientists and Engineers for Appalachia, the principal sponsor, is a nonprofit association whose objective is to help advances in science and technology to be used toward the enrichment of life in Appalachia. Its headquarters are on the Berea (Ky.) College campus. The other sponsor is Oak Ridge Associated Universities.

Also assisting with arrangements for the fair is the Nuclear Division's Industrial Cooperative Program.

Named supervisor at ORNL

Glenn G. Underwood, Instrumentation and Controls Division at Oak Ridge National Laboratory, has been promoted to maintenance supervisor.

Underwood joined the Laboratory staff in 1948. He was an instrument technician prior to his promotion.

A native of Lenoir City, he lives in Loudon with his wife, Betty Kay. She is a keypunch clerk in ORNL's Finance and Materials Division.

recreationotes

Softball leagues

The Recreation Department is now accepting entries for the upcoming softball season. Forms should be submitted to the office, Building 9711-5, mail stop 1, or by telephoning 3-5833.

To accommodate all levels of age and ability, there will be three leagues. The Atomic League will comprise players on a highly competitive basis, in other words, the semi-pros. The Nuclear League will be for those past 35. The Carbon League will be a "fun" league and will consist of men and women. There must be representatives of both sexes in this league, even though all leagues are open to both men and women.

The deadline for entry is April 15, so time's a-wasting! Just phone your team, or individual entry in. Or send it in in writing.

ORGDP bowling

Dwight Hatch's 222 single game and 644 handicap series gave the Double X team a double boast in the Tuesday League a couple of weeks ago. The All Stars still, however, stand taller than other teams, about 26 points out from the City Slickers.

The Wednesday League sees a tie with the Amps and Planners outdistancing the Hi-Rollers by a mere point. Charley Hale poured a 269 game down the lanes, as Jim Hutton rallied with a 647 series.

The ORGDP's Women's League saw Oleta Carden roll a 590 scratch series, games of 201, 199 and 190 ... with a 677 handicap total the middle of March! The Uptowners hold a seven and one-half point lead over the Payoffs, as the season draws close to a big finale.

ORNL bowling

The ORAU team holds a 19-point lead in the A League, as the season draws near its end. Their 3116 combined handicap series crashed the boards recently, giving them a substantial leg up past the Woodchoppers.

The C League, with its roll-off set this week will end the 1975-1976 action, as the Remkeys and Alley Rads go for the top spot. The Rads' Marvin McCarty, fired a 657 handicap series to pace other alley-men recently.

The ORNL Ladies League puts the Mousechasers four points ahead of the Pickups, as Brena Stevens, Georgia Guinn, Sally Stockstill and Elizabeth Phipps took individual honors in early March.

Ronald Sharp, with a 571 scratch series; Mae Davis with 525 paced bowlers in the Carbide Family Mixed League. The Odd Balls are still two points ahead of the Possibilities, as the Challengers and Oops team vie for third place.

Y-12 bowling

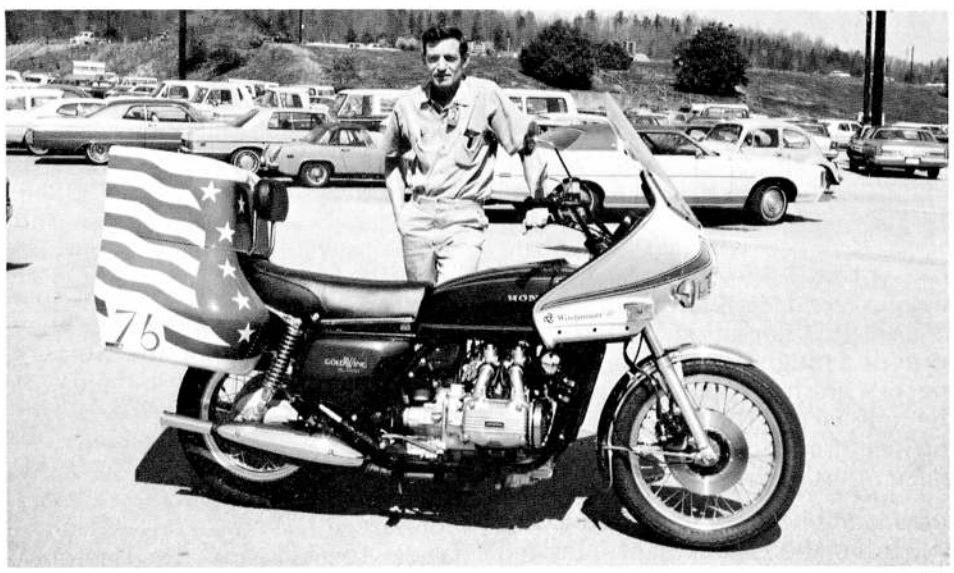
The Friskies hold a one-point lead over the Rollers, who are two in front of the Roses 'n Thorns, as the Mixed League decides this week who will win the second half. The Rollers took the season's first half. If they win, there will not be a roll-off. Meanwhile, Edwena Dunbar rolled a 261 handicap, 619 series recently to pace her team.

The Splinters and Eightballs tie for the Classic League, as the Markers and Smelters hold a tight grip on second place. High single games, in scratch count, still go to Jim Lawhorn, 256; John Patton, and Dan Kessell, both 254 each.

The Mini-Strikes hold a two-point lead in the C League as the Rollmasters still stay in contention in second place. High games belong to Del Lay, 245; Tom Hillard, 244; and Joe Morgan and Charley Baxter, with 238 each.

Presidential citation

Richard D. Seagren, ORNL, has earned a Presidential Sports Award in figure skating.



HAIL COLUMBIA — Eugene Waters, ORNL's Analytical Chemistry, salutes the Bicentennial in proper fashion with his self-styled wheels. He has become the talk of Y-12's Central Parking Lot with his colorfully designed motorcycle.

Clark Center Recreation Park opens

Spring flower walks, picnics in the part, boat-launching, fishing and other activities make life seem worthwhile after the dreary months of winter.

The Clark Center Recreation Park opened yesterday to all Union Carbide employees, as well as those of the Energy Research and Development Administration, Oak Ridge Associated Universities, and The University of Tennessee employees in the Oak Ridge area.

Large group picnic reservations, when tables together are desired, should be made in advance. Group picnics are arranged through the Recreation Office, telephone extension 3-5833. (Most Saturdays are already gone for the summer, Recreation sadly reports.)

Employees should also make application for auto decals allowing them access into the Park. These decals are available through Recreation also.

Tee-Off Time Application for April 24

(Check Appropriate Plant)

☐ ORGDP — Whittle Springs
☐ Y-12 — YMCA Center
☐ ORNL — Wallace Hills

_____ LEADER _____ _____

_____ Phone Bldg.

_____

_____ _____

Time Preferred

COMPLETE AND RETURN TO YOUR RECREATION OFFICE

Entries must be received prior to drawing on April 21, 2 p.m.

ORGDP — Building K-1001 — C Wing — MS 122
Y-12 — Building 9711-5 ORNL — Building 2518

Tee-off times for all tournaments will be drawn on Wednesdays prior to each Saturday's tournament. Golfers are responsible for reserving their own carts by contacting the pro shop following drawing for tee-off times.

PATENT HOLDERS HONORED — Scientists, technicians and engineers from throughout the Nuclear Division who had inventions were honored last week at a luncheon in Oak Ridge. Some 98 persons received patent applications in 1975, adding to the technology of nuclear science and related fields.

nuclear division news

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medicine chest

by T. A. Lincoln, M.D.

(Editor's Note: Dr. Lincoln alternates his regular column with "The Medicine Chest," where he answers questions from employees concerning health in general. Questions are handled in strict confidence, as they are handled in our Question Box. Just address your question to "Medicine Chest," NUCLEAR DIVISION NEWS, Building 9704-2, Stop 20, Y-12, or call the news editor in your plant, and give him or her your question on the telephone.)

QUESTION: "What are hemorrhoids? What causes them? Why are they so difficult to treat? Do they 'cure' themselves? Is there a correlation between hemorrhoids and cancer? What is the new 'tie-down' method? Are the non-prescription, much advertised ointments any good?"

ANSWER: Hippocrates, the Greek physician known as the "father of medicine," defined a hemorrhoid as a pile or a vascular tumor of the rectal mucous membranes. Now, about 2,400 years later, ask a physician to give you a more precise anatomical definition of a hemorrhoid and he probably will be hard pressed.

Hemorrhoids are often called varicose veins of the anus and rectum. Such an explanation is too simple. There is no evidence of any restriction of venous drainage from the anus or of an increased venous pressure, which should be present if the normal mechanisms for producing varicose veins were operative. If these mechanisms were present, they would produce hemorrhoids equally frequently in all quadrants of the anal canal. Actually, hemorroids often are single or occur only on one side.

Support lost

Some physicians feel that hemorrhoids are due to an overgrowth of veins, but there is little anatomical evidence to support this idea. Probably the main contributing mechanism is loss of support. There are three main cushions of highly vascular tissue in the anus, always located in the right anterior, right posterior and left lateral positions — the same place where hemorrhoids most frequently occur. These cushions are composed of a plexus of veins supported in a scaffold of smooth muscle and elastic tissue.

The cushions provide a delicate, valve-like mechanism for both holding and expelling feces and flatus. A well-functioning system will contain a rectum full of watery diarrhea and not spill a drop until the signal is given by the brain to let go!

The cushions lose their position and support because of a combination of many factors. Standing, straining, constipation or a genetic weakness may cause them to become engorged and distorted. They no longer flatten out in front of an advancing large stool, providing a comfortable, well-controlled evacuation. Over a period of time, individual bulges composed of veins stand out and are called hemorrhoids. The normal architecture is lost.

Bleeding, when it occurs, is usually bright red and oozes from capillaries on the surface. Hemorrhoids themselves almost never break open and bleed venous blood.

Occasionally, following some mild injury, a hemorrhoid may develop a clot. Defecation of a hard stool, prolonged standing, sitting on a cold bleacher at a football game or bouncing around on a tractor seat may cause the clot formation. When it occurs, it is acutely painful and is called a thrombosed hemorrhoid.

Not self-healing

Hemorrhoids tend to come and go, but they usually don't cure themselves. They are not precancerous lesions. If one wants to be as sure as possible that he will never have a recurrence, then a hemorrhoidectomy is the best treatment. However, as people who have had it done can vividly testify, it can be a very unpleasant operation.

The British, who don't have the money we have, tend to emphasize more conservative treatment. They report that about 60 to 70 percent of patients even with severe hemorrhoids get almost complete relief from their symptoms just from dilatation of the anus under general anesthesia. It requires only about two days in the hospital and a person can return to work a day or two later. If the symptoms recur after a year or two, a hemorrhoidectomy or some other procedure can be done.

Individual hemorrhoids can be injected with a sclerosing solution or they can be tied off using a rubber band. Hemorrhoids can also be individually frozen. These techniques give good results, especially when the hemorrhoids are not severe. The recurrence rate is much higher than with a hemorrhoidectomy, but these procedures can be done in the office and can be repeated several times if necessary.

Diet a factor

A thorough hemorrhoidectomy is highly successful. All one has to do when he has his first bowel movement after surgery is to think of the delightful maxim surgery teachers tell their pupils, "When it looks like a clover the operation is over." You will be quite certain it was not a four leaf clover!

When hemorrhoids cause pain and itching, sitting in a tub of warm water and soaking one's tail gives relief. Various soothing and anesthetic ointments and suppositories give symptomatic relief and are definitely useful.

If we returned to the simple life, we might not have hemorrhoids. People in relatively primitive societies don't have hemorrhoids. They eat little meat, sugar, or processed foods and consume large amounts of coarse cereals. They have three or four soft stools each day and just spread their legs and lean forward or simply squat when they defecate. They have no need for fancy commodes on which to sit while straining to pass a formed stool.

One consequence of our civilization is hemorrhoids, and the price many of us have to pay is a surgical attack on an essential backside orifice. We take it for granted when it works right, but when it fails us we may have to accept the fact that we are being punished for our "unnatural" diets and habits.

NUCLEAR DIVISION SAFETY SCOREBOARD

Time worked without a lost-time accident through March 25:

Paducah	68 Days	797,000 Man-Hours
ORGDP	8 Days	231,000 Man-Hours
Y-12 Plant	19 Days	510,000 Man-Hours
ORNL	135 Days	2,617,339 Man-Hours

retirements

Cannon

Hipshire

Lyon

Spoon

Boatman

Fuis

Fugate

Smith

Four Oak Ridge National Laboratory employees took early retirement at the end of March.

Howard R. Cannon was a chauffeur and truck driver in Plant and Equipment Division prior to his retirement. A 30-year employee, he lives on Shady Lane in Powell.

Floyd Hipshire, who joined the staff in 1943, was a fire and guard lieutenant in Laboratory Protection. His home is on Oak Ridge Highway in Knoxville.

Richard N. Lyon, a member of the Energy Division's research staff, retired after 31 years company service. He lives at 348 East Drive, Oak Ridge.

Horace M. Spoon completed nearly 32 years company service before retiring from his position as a guard in Laboratory Protection. Spoon lives at 4408 Ball Camp Road, Knoxville.

Two Oak Ridge Gaseous Diffusion Plant employees increase the UCC retirement roles, as Garland C. Fugate retires today, and Phyllis Hill Smith will retire at the end of April.

Fugate, Barrier Maintenance, joined ORGDP in 1945. He lives on Collins Street, Spring City.

Smith, a keypunch operator in Computer Sciences, joined Union Carbide in 1953. An early retiree, she lives at 110 Parker Road, Oak Ridge.

Walter M. Boatman Sr. and Frank Fuis Jr., both 32-year veterans from Y-12, retired the end of March.

Boatman, Research Services, lives at Route 5, Watt Road, Lenoir City.

Fuis, Tool Design Engineering, lives at 52 Pine Road, Norris.

division death

J. B. Boles, Y-12's Buildings, Grounds and Maintenance Shops, died March 19 at the Chamberlain Memorial Hospital.

Mr. Boles

A native of Rhea County, he was a veteran of the U. S. Army and had worked with J. A. Jones Construction Company, Rockwood Stove Works and The Superior Sand Company before joining Union Carbide in 1954.

Survivors include his wife, Nellie Boles, 135 South Chamberlain Avenue, Rockwood; a daughter, Mrs. Paul Jones; a son, G. W. Boles; and a sister, Mrs. Frank Waldo.

Funeral services were held at the Booth Funeral Home, with the Rev. Herbert Lee and the Rev. Vance Eastridge officiating. Burial was in Oak Grove Cemetery.

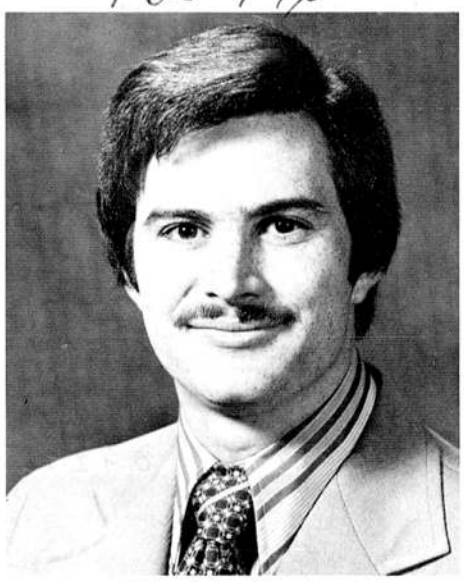
165946

Shepherd joins Public Relations

Michael D. Shepherd has joined the Public Relations staff of the Nuclear Division to coordinate the color video capabilities for the four plants. The video studios will be located in Building 9766 at the Y-12 Plant.

Shepherd, a native of Greeneville, has a B.S. in communications from The University of Tennessee. Most recently he has been with WSJK-TV as a senior producer/director.

He is married to the former Jessica Creech, and they live at 801 Gate Lane, Knoxville. He is a licensed pilot.



Michael D. Shepherd

29th Biology Symposium

0606-73

Volkin

The 29th annual Biology Research Symposium, entitled, "mRNA: The Relation of structure to Function," will be held April 5-8, 1976 at Gatlinburg, Tenn., under the sponsorship of Oak Ridge National Laboratory.

The conference, supported by the Energy Research and Development Administration, will consist of 24 papers presented in six technical sessions on the subject of messenger ribonucleic acids, or mRNA. The mRNA are relatively short-lived molecules within body cells which carry information relating to the synthesis of proteins.

Conference chairman is Elliot Volkin of ORNL's Biology Division. Other members of the organizing committee include K. Bruce Jacobson, Kai-Lin Lee, Salil K. Niyogi, John Papaconstantinou and May Uziel, all of ORNL, and James E. Darnell, Jr., Rockefeller University.

The first session will be entitled "Primary structure at the 5' end." The second session is on the "Addition of poly(A): Role in mRNA synthesis and function." Session three will be entitled "Nucleotide sequences of purified mRNAs." The fourth session will deal with "The question of mRNA processing." Session five will be entitled "Chromatin templates for mRNA transcription," and the sixth session will be on the "Control of translation."

BIOLOGY SEMINAR SCHEDULED APRIL 2

Biology Division Seminar: "The Crystal Structure of Tyr-tRNA Synthetase in the Protein RNA Recognition," Brian Reid, University of California, Riverside. Large Conference Room, Building 9207, Y-12, 3 p.m.

WANTED

ORNL

Two or three CAR POOL MEMBERS to join pool now in its seventeenth year. From Hillside-Pennsylvania-West Outer area, Oak Ridge, to any portal, 8:15-4:45 shift. Contact Tom Burnett, plant phone 3-6939, home phone 483-1975, or Dick Strehlow, plant phone 3-1175, home phone 482-3240.

TWO RIDERS to join Knoxville Commuter Pool from West Knoxville to any portal, 8:15 shift. R. L. Pearson, plant phone 3-1875, home phone 588-9949.

RIDERS for Knoxville Commuter Pool from Halls or Fountain City area, Knoxville. Al Farmer, plant phone 3-6479, home phone 922-2556.

WILL pay for RIDE from Belmont West area, Knoxville (near Cedar Bluff exit). Call 3-6285, home phone 693-5386.

Y-12 PLANT

RIDE from Garden Apartments, West Vanderbilt Drive, Oak Ridge, to East Portal, straight day. H. G. Travis, plant phone 3-7807, home phone Oak Ridge 482-1392.

ONE CAR POOL MEMBER from Cherokee section, Kingston, to East Portal, straight day. Earl Canup, plant phone 3-5308, home phone Kingston 376-6291.

APRIL 16 HOLIDAY

Friday, April 16, is an official holiday for Nuclear Division employees. No one will be required at work unless his/her presence is required for continuous operation or plant security.

Good Friday is believed to have begun as "God's Friday," the day traditionally observed as the day of the crucifixation of Jesus of Nazareth. It heralds the beginning of Easter weekend.

next issue . . .

The next issue will be dated April 15. The deadline is April 7.

WHAT DOES IT COST YOU TO DRIVE TO AND FROM WORK?

IT MAY BE A GREAT DEAL MORE THAN YOU THINK.

YOUR CAR TYPE	TOTAL COST PER MILE★
standard/intermediate	.16¢
compact	.13¢

★ **tires, depreciation, maintainance, gas, insurance, taxes**

COST OF DRIVING TO AND FROM WORK

Round Trip Miles	Drive Alone Cost .16 Mile Monthly/Year	Carpool* Cost Monthly/Year	Vanpool Cost Monthly/Year
20	$67.20/$806.40	$16.80/$201.60	$23.00/$276.00
30	100.80/1209.60	25.20/302.40	25.50/305.00
40	134.40/1612.80	33.60/403.20	28.00/336.00
50	168.00/2016.00	42.00/504.00	31.00/372.00
60	201.60/2419.20	50.40/604.80	33.50/402.00
70	235.20/2822.40	58.80/705.60	36.50/438.00

*with four paying passengers

We Can Help You

see

your personnel office

Division joins UT efforts to aid in carpooling drive

(continued from page 1)

Haggod, Finance and Materials Services. Wright will also act as representative for the Employee Relations Division.

Publicity for the division-wide effort to aid employees has been launched at all three sites. Impressive charts show savings for as much as $1,700 a year for one person in a four-person carpool, compared to driving 25 miles to work each way alone. Even with a compact car, it is estimated that mileage costs amount to 13¢ per mile for the average commuter.

Many division employees took advantage of the energy-saving efforts three years ago, and are still carpooling it to work to save on gas, oil, and wear-and-tear on the auto.

Telephone extensions for the plant coordinators are Wright, ORGDP, 3-3293; Seivers, Y-12, 3-5241; and Johnson, ORNL, 3-1271. Additional information on the ride-sharing program may be obtained from them.

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